

Inventor search

WHITE 09/857, 572

=> d his

(FILE 'HOME' ENTERED AT 10:07:38 ON 23 JUL 2003)

FILE 'HCAPLUS' ENTERED AT 10:07:53 ON 23 JUL 2003

E O BRIEN J/AU
L1 1459 S O BRIEN J?/AU
L2 42 S L1 AND FIBER
L3 2 S L2 AND POLYSACCH?
SELECT RN L3 1-2

FILE 'REGISTRY' ENTERED AT 10:09:26 ON 23 JUL 2003

L4 2 S E13-14

FILE 'HCAPLUS' ENTERED AT 10:09:51 ON 23 JUL 2003

L5 1 S L3 AND L4
L6 2 S L3 OR L5

=> d ibib abs hitstr ind 1-2

L6 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:513865 HCAPLUS
DOCUMENT NUMBER: 133:121604
TITLE: **Polysaccharide fibers and their production**
INVENTOR(S): **O'Brien, John P.**
PATENT ASSIGNEE(S): E.I. Du Pont De Nemours and Company, USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000043580	A1	20000727	WO 2000-US1160	20000119
W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1165867	A1	20020102	EP 2000-903335	20000119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002535501	T2	20021022	JP 2000-594981	20000119
PRIORITY APPLN. INFO.:			US 1999-117209P	P 19990125
			WO 2000-US1160	W 20000119

AB **Fibers** made of .alpha.- (1.fwdarw.3) **polysaccharides** (having .gtoreq.50% hexose units) have cotton-like properties but can be produced as continuous filaments on a year-round basis. The **fibers** are useful in textile applications. The **polysaccharides** are dissolved in a solvent to form a liq. cryst. soln., from which **fibers** can be spun. Thus, poly(.alpha.- (1.fwdarw.3)-D-glucose)(isolated from cultured cells) was acetylated and dissolved in solvent soln. of trifluoroacetic acid/H₂O, and extruded from a syringe into a MeOH soln. bath to give **fibers**, having tenacity 4.2 g/denier and elongation 17.5%.

IT 9051-95-0 285568-03-8
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (fiber; polysaccharide fibers spun from a
 liq. cryst. soln.)
 RN 9051-95-0 HCAPLUS
 CN .alpha.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 285568-03-8 HCAPLUS
 CN .alpha.-D-Glucan, (1.fwdarw.3)-, acetate (9CI) (CA INDEX NAME)

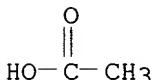
CM 1

CRN 9051-95-0
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-19-7
 CMF C2 H4 O2



IC ICM D01F009-00
 ICS C08L005-00; C12P019-04
 CC 40-2 (Textiles and Fibers)
 Section cross-reference(s): 33
 ST poly glucose fiber soln spun; polysaccharide
 fiber soln spun
 IT Synthetic polymeric fibers, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (polysaccharides; polysaccharide fibers
 spun from a liq. cryst. soln.)

IT 9051-95-0 285568-03-8
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (fiber; polysaccharide fibers spun from a
 liq. cryst. soln.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2000:327966 HCAPLUS
 TITLE: Pushing the property envelope of
 polysaccharide fibers.
 AUTHOR(S): O'Brien, John P.
 CORPORATE SOURCE: Experimental Station, Dupont CR&D, Wilmington, DE,
 19880, USA
 SOURCE: Book of Abstracts, 219th ACS National Meeting, San
 Francisco, CA, March 26-30, 2000 (2000), CELL-107.
 American Chemical Society: Washington, D. C.

CODEN: 69CLAC

DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English

AB The ability to approach theor. predicted mech. strength levels in fibrous materials is dependent upon achieving high mol. orientation along the tensile direction of the material. Liq. cryst. ordering offers significant advantages in this regard and is a key element in the technol. for selected high performance **fibers** including Dupont's Kevlar* aramid. Cellulose and certain of its derivs. possess sufficient chain rigidity such that phase sepn. to ordered liq. cryst. domains occurs under the proper conditions. Technol. developed in our labs. has shown that such solns. can be processed into **fibers** with mech. strength and modulus that are significantly greater than those of any previously known man-made or natural cellulosic **fibers**. This paper will highlight aspects of the process and discuss the synthesis of the polymer precursors and the characterization of these novel cellulosic **fibers**. *Dupont Registered Trademark.